Gulf of Mexico OCS Region

Contract Reports Specifications

MMS U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region

Gulf of Mexico OCS Region

Contract Reports Specifications

Authors

Debbie Vigil
Debbie Miller
Connie Landry
Mike Dorner

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PURPOSE

These specifications are provided for use as a guide for authors, editors, and typists whose task is to produce a camera-ready document for the Gulf of Mexico Outer Continental Shelf Region Environmental Studies Program (ESP), Minerals Management Service (MMS). These guidelines apply only to ESP contract reports in draft, proof copy, and final camera-ready phases. For references to digital deliverables the contractor should refer to the contract. Digital deliverables of contract reports should also follow these report specifications for text and graphics.

Any questions regarding the report should be directed to the Contracting Officer's Technical Representative (COTR).

EDITORIAL GUIDELINES

The author should identify and address the appropriate audience for each volume of the report. The executive summary should be written to address the well-informed layperson while the narrative report or discussion should address the scientific audience. Authors should strive to maintain a professional tone in their work.

REPORT FORMAT

General

If a report is bound as a single volume, the executive summary should appear as chapter one and should be targeted for an audience of well-informed laypersons. Succeeding chapters should reflect narrative data addressed to the scientific audience. Any appendices should appear in a back matter section. Table 1 summarizes the key elements of a single-volume report.

Any report that will exceed two inches in thickness when bound and printed double-sided should be subdivided into separate volumes. The executive summary should always be Volume I and be targeted for an audience of well-informed laypersons. The executive summary should condense the results and findings and be presented in a manner sufficient to convey the overall significance of those findings. Volume II should be a narrative report or discussion subdivided into appropriate subject chapters and should address the scientific audience. Selection of chapter topics and contents should be made by the contractor, unless

specified in the contract. If space is available, any appendices may be presented as back matter in the volume. However, bulky appendices should be provided as Volume III. Table 2 summarizes each volume with its objectives and targeted audience.

Page Numbering

The front side of all pages should have odd page numbers and the back side should have even page numbers. Thus, the term "odd page" refers to the front of a page and the term "even page" refers to the back of a page.

Placement of page numbers should be at the top of each page, justified right for odd-numbered pages and justified left for even-numbered pages. An optional suggested format is at the bottom center of a page. Front matter pages are numbered consecutively with lowercase Roman numerals. The main text should be numbered consecutively with Arabic numerals.

In some instances, there will be blank pages in a report. If separator pages (Figure 1) are used, the back is to be left blank. Page numbers are to be omitted from the front and back of separator pages and from any page left blank. Blank pages, however, are counted in the total number of pages.

Order of Elements

The order of elements listed below should be followed as the standard order. Elements listed should appear in each volume; those elements marked as "optional" are not required but would enhance the report.

(1) Outside Front and Inside Back Covers
(2) Title Page
(3) Disclaimer/Report Availability/Citation/Cover Art Acknowledgment
(4) Foreword or Preface/Acknowledgments (Optional)
(5) Summary or Abstract (Optional)
(6) Table of Contents
(7) List of Figures
(8) List of Tables
(9) List of Abbreviations and Symbols (Optional)
(10) Main Text or Body
(11) Back Matter

(1) ***Outside Front and Inside Back Covers***

The camera-ready outside front cover (Figures 2 and 3) and inside back cover (Figures 4 and 5) will be provided by MMS, prepared in accordance with standards, and provided to the

contractor by the COTR. Elements of the outside front cover that need to be provided by the contractor include the title, subtitle, and cover artwork (optional).

The title should be specific but brief, and should include pertinent words that would be useful to indexing services and in conducting literature searches. If the report has a subtitle, it should be distinguishable from the title. Exclude unnecessary phrases such as "a study of" or "a report on." If a report is bound in more than one volume, the subtitle should be used to identify the volume in Roman numerals, e.g., Volume I: Executive Summary. If the report is the result of a multiyear study that is being reported on an annual basis, identify the report by year, i.e., Year 2 Annual Report or Year 6 Final Report.

Artwork for the outside front cover should be carefully selected from photographs, illustrations, maps, charts, and other graphics. Photographs selected should be submitted as glossy black-and-white prints. The selection of slides or negatives for the cover artwork should not require special manipulation if they are high quality. Line art, including drawings, charts, maps, and other graphics, should be submitted as original artwork. Protect the original photograph, slide, negative, or artwork inside a separate envelope or package that has been clearly marked with the name of the contract. Contractors should address any questions on such matters to the COTR. Use of any copyrighted material (including photographs) should be authorized in writing. A copy of each authorization must be delivered to the COTR.

When a project receives major support from another governmental agency, i.e., an Interagency Agreement, the contractor should furnish the following information to the COTR: supporting agency's name, Department affiliation, and publication identification number.

(2) ***Title Page (first odd page, unnumbered)***

The title page is a mandatory front matter page and should be provided in draft format by the contractor with all draft versions of the report. The camera-ready page (Figures 6 and 7) will be provided to the contractor by the COTR and will be formatted in accordance with MMS standards. Elements of the title page include the title; subtitle, if any; authors or editors; contractor and address; and contract number. Projects that receive major support from other governmental agencies may also include the project officer on the title page.

Begin lists of authors with the program manager. Do not include professional degrees or titles. Authors or editors should be listed by author's preference as either (a) first name, middle initial, last name; or (b) first initial, middle name, last name. Co-authorship should be restricted to those who contributed substantially to the preparation of the publication. There should be no more than five authors listed.

When numerous authors have contributed to a report, list only the main author and editor on the title page. The remaining authors and editors (a) can then be mentioned in the

Acknowledgments or (b) their names can be added to the chapters they wrote or edited (Figure 8). Contractors should address any questions on such matters to the COTR.

(3) ***Disclaimer/Report Availability/Citation/Acknowledgments (new odd page, Roman-numbered)***

This mandatory page is subdivided into headed sections: Disclaimer, Report Availability, Citation, and Acknowledgments, if applicable. All use of copyrighted materials must be clearly stated and copies of permissions provided (as part of the contract deliverable). Precise wording for this page is provided in Figures 9 and 10.

(4) ***OPTIONAL: Foreword or Preface/Acknowledgments (new odd page, Roman-numbered)***

A foreword is an introductory note written as an endorsement by someone other than the author. A preface (Figure 11) is written by the author and includes information that must appear in the manuscript but is not relevant to the technical text. The preface should contain a brief description of the contents of the report, an explanation of how the material has been organized and, if appropriate, an explanation of how the report will be updated. Any stipulations regarding the use of information in the report should be addressed here. Permissions to use copyrighted materials should also be stated.

Acknowledgments (Figure 12) recognize individuals, other than authors, and organizations that contributed significantly to the project or report. However, if several contractors or program managers were involved in the preparation of the report, include this information here rather than on the title page. Any additional funding sources should be mentioned here.

(5) ***OPTIONAL: Summary or Abstract (new odd page, Roman-numbered)***

A summary or abstract (Figure 13) outlines the main conclusions, results, and recommendations of the study. An abstract should clearly and concisely state the thesis, describe the methodology, and state the findings and conclusions.

(6) ***Table of Contents (new odd page, Roman-numbered)***

All reports should include a table of contents (Figure 14). The listings should match verbatim the headings and subheadings of text, and the names of individual appendices. Please ensure accuracy of page numbers in the final draft submitted since revisions and repagination cause the page numbers to change. The Table of Contents should list headings at least down to the second level.

(7) *List of Figures (new odd page, Roman-numbered)*

Each volume of a report, except appendices, that contains at least two figures should include a list of figures (Figure 15). For each illustration, the figure number and caption, as they appear in the report, and the page number should be provided. Lists of figures and tables less than one-half page in length may be stacked on the same page.

(8) *List of Tables (new odd page, Roman-numbered)*

Each volume of a report, except appendices, that contains at least two tables must include a list of tables (Figure 16). For each table, the number and title, as they appear in the report, and the page number should be provided. Again, please ensure accuracy of page numbers in the final draft submissions since revisions and repagination cause page numbers to change.

(9) *List of Abbreviations and Symbols (new odd page, Roman-numbered)*

If there are many nonstandard abbreviations or symbols within the text of a manuscript, a list of abbreviations, symbols, and acronyms should be included. In addition, each nonstandard term or symbol should be defined when first mentioned in the text, followed by its abbreviation or symbol in parentheses. The abbreviation or symbol should be used thereafter in the text, unless there is a large intervening gap in usage.

(10) *Main Text or Body (new odd page, first Arabic-numbered)*

The main text of a report typically includes an introduction, methodology, results, discussion, conclusions, and recommendations. The first page of the main text or body should begin with Arabic numeral 1 and the remainder of the text should be consecutively numbered, including blank pages and pages with charts, maps, tables, and illustrations.

Separator pages alert the reader to a change in the subject matter. If separator pages are used, they should always be introduced as a new odd page and should be blank on the back (Figure 1).

References cited in the text should follow the name-and-year system (Harvard); e.g., the author's surname followed by the year of the publication. Do not put a comma between the surname and year. If there are two authors, list both surnames before the year; for three or more authors, list the senior author's surname followed by "et al." and the year in that order.

One author: (Smith 1996)
Two authors: (Smith and Jones 1996)
Three or more authors: (Smith et al. 1996)

(11) *Back Matter (new odd page, Arabic-numbered)*

Literature citations, bibliographies, or references are mandatory sections that follow the main text in a separate section; they should be consistent in format.

For reports that include cited and uncited works in the text, whether published or unpublished, the section should be called a list of references or a bibliography. If the section lists only references cited in the text, the section should be titled "Literature Cited."

Entries should appear alphabetically by author's name with multiple listings arranged chronologically by year of publication. Should multiple entries for the same author appear for a given year, entries should be sequenced alphanumerically by year, with the most recent at the end. The author may then sequence such multiple listings by either (a) listing entries in the order in which they appear in the text or (b) alphabetizing entries by title.

When appendices are used, each appendix should begin on a new odd page with a separator page followed by the appendix on the succeeding new odd page. Identify each appendix with a capital letter in alphabetical order. The appendices should appear in the Table of Contents.

The Report Documentation Page (Standard Form 298 (Rev. 2-89)) will be the last new odd page in each volume (Figure 17). An abstract of the report describing the research goals, methodology, and results achieved by the project should be prepared by the contractor and appear in Block 13. Each abstract should contain information that describes the specific contents of that volume. The reverse side of Standard Form 298 provides the instructions for completion of the Report Documentation Page.

TEXT AND GRAPHICS SPECIFICATIONS

Preparation of the draft, proof copy, and final camera-ready report should follow the specifications described below. The contractor should make corrections to the draft and proof copies as specified by the COTR. Additions or revisions affecting the contractor's interpretations, recommendations, or judgments will be changed by mutual agreement. Consistency is the key, in spelling, numerals, and rules of grammar.

Text

The final, camera-ready report should be typed and single-spaced on one side of the page only. The report must be produced on a laser-quality printer capable of handling graphics with good resolution. Black ink is to be used on high-quality white paper measuring 8 1/2" by 11".

All pages are to maintain a 1-inch margin on all sides; however, please remember to allow room for the page number if it is to be placed at the bottom center of the page. In such case,

the page number should be at least one-half inch from the bottom edge of the page. "Widows" and "orphans" are not permitted, and do not hyphenate the last word on a page.

The main text should be set as a 10-point font but a 12-point font is acceptable. The same font should be used throughout the report. A proportional typeface is recommended, but in any event, the text must be set in a typeface having serifs. (A sans serif typeface, such as Helvetica, is permissible for display type, headings, tables, figures and captions.)

Graphics (Figures and Tables)

Figures (illustrations, maps, charts, and other graphics) and tables should closely follow their first reference in the text; however, figures or tables that are numerous in relation to the text may be grouped in numerical sequence at an appropriate place within the text.

Care should be taken to ensure that figures and tables are precisely and squarely aligned on each page and that all elements fit within the margins. Figures and tables should be numbered consecutively using Arabic numerals. Each number should be followed by a period, two spaces, the title, and a period. Figure numbers and captions should be placed directly below the figure. Text for the caption should be indented after the figure number. Table numbers and titles should be centered and placed two blank lines above the table.

Orientation for text on a page is to be set up as portrait (Figure 18). The preferred orientation for figures and tables is portrait. When the orientation for a page needs to be landscape (Figure 19), be sure the justification is set to the left.

All figures and tables, including their titles, should fit inside the 1-inch margins established for all sides of the page. Fold-outs are strongly discouraged, although they are allowed. (Fold-outs are discouraged because they increase the cost of duplicating the document since they must be inserted manually.) If fold-outs are necessary because a figure or table cannot be reduced to fit on a page, it is recommended they be folded and placed in a pocket at the back of the report. If reductions are necessary, all lettering inside the figure or table should appear no smaller than a 6-point font and, as mentioned earlier, all lettering within the figure or table should be the same type font. Titles, however, should always match the point size used in the text of the report.

Lengthy tables may be divided and placed on consecutive pages with the title repeated on each page. The continuing page of the table should have the word "continued," in parentheses, immediately following the title.

The Department of the Interior rarely approves the use of color for photographs, figures (including maps), and tables. Contractors should address any questions on this matter to the COTR.

Photographs may be used, provided they are sharp in focus and have good contrast. Along with the camera-ready report, submit prints, slides, or negatives inside a separate package clearly marked with the name of the contract. Insert a photocopy in proper sequence inside the final report. Refer to the contract for digital deliverable requirements.

Line art, including drawings, charts, maps, and graphs, should include only pertinent details to ensure legibility. Lettering should be a sans serif style. Do not use large areas of solid black. Avoid using any patterns that are too coarse, excessively fine, or distracting. Submit originals or, at a minimum, first-generation copies. Originals of all line art should be submitted with the camera-ready report.

Numerals

Use words to express whole numbers through "nine" and numerals for numbers 10 and above except in expressing units of measurement, time, and dates. Ordinal numbers should follow the same guidelines; e.g., sixth, 23rd.

In the text proper, substitute words for part of very large numbers, such as 25 million, 8.3 million, $3 billion, and $26.8 million, or use scientific notation unless accuracy requires the use of a long number.

The modernized metric system is known as the International System of Units (SI) and is the preferred standard usage. It is founded on seven base units, listed in Table 3, which are regarded as dimensionally independent. All other units are derived units, formed coherently by multiplying and dividing units within the system without numerical factors. Examples of derived units, including some with special names, are listed in Table 4.

An important function of the SI is to discourage the proliferation of unnecessary units. However, it is recognized that some units outside the SI are so well established that their use is permitted. Units in use with the SI are listed in Table 5. As exceptions to the rules, the symbols °, ', and " for units of plane angle are not preceded by a space, and the symbol for liter, L, is capitalized to avoid confusion between the letter l and the number 1.

Use numbers for expressions of time, such as dates, page numbers, percentages, and numeral designations:

July 3, 1996; 14 December 1996; August 1996
page 527
98%; 98 percent
type 2

Miscellaneous

The preferred method to indicate the atomic number and mass number is to write them as subscript and superscript, respectively, ; e.g., Cobalt-60 should be written as: $^{60}_{27}CO$. To indicate isotopes use one of the following: Cobalt-60; CO-60; $CO^{60.}$ Any of these methods are acceptable.

The preferred rate and concentration method are reciprocal units: $cm \cdot s^{-1}$

Individual measurements should be presented with an indication of the error of measurement. Within a class of measurements, the method of indicating error should be consistent, and knowledge of the errors inherent in the measurement process should be summarized for each class of measurements. The expression of error (standard deviation, coefficient of variation, confidence limits, etc.) should be specific.

$$23.9 \pm 0.3 \text{ mg} \cdot \text{g}^{-1}$$

All significant digits should be considered. The significant digits in a number are limited by the generating number with the fewest significant digits:

1.00 x 964.259 = 964
1.0 x 9643.42 = 9600

Be consistent with dimensions; e.g., tubing and area dimensions or positions:

5 mm I.D. x 5 m
5 mm x 20 cm x 2 m
31°21' N latitude, 56°05' W longitude

Logarithms may be expressed as:

ln - natural base
log - base 10

The name "Celsius" is preferred to "centigrade."

Organize a series of topics that is lacking a meaningful sequence in either alphabetical or numerical order. For example:

a. Al, Ca, C, Fe, Ni, Pb, and Zn
b. Barium, chromium, lead, nickel
c. I, II, III, IV, and V
d. hydrocarbons and trace metals

MARINE ECOSYSTEMS

The Marine Ecosystem Studies Series include major field efforts addressing multi disciplinary data gathering, analysis, and interpretation. The objectives of these studies were to gather data characterizing the physical environment and biological communities prior to the onset of oil and gas activities in so-called "frontier" areas, so that changes in these characteristics following oil and gas exploration and development could be ascertained and perhaps mitigated. The baseline studies were brought to an abrupt halt in late 1978 following criticism by various individuals and agencies that the studies did not provide information in a timely manner for lease-management decisions. That is, information describing the physical environment, biological habitats and communities, and naturally occurring regional hazards is needed to make management decisions regarding advisability of leasing in particular areas. Information is also needed for stipulations to mitigate both the hazards to the offshore operations and the hazards to the environment caused by the offshore operations. Similarly, information is needed to define the terms of the lease stipulations or other mitigating measures to assure their effectiveness.

Figure 1. Sample separator page.

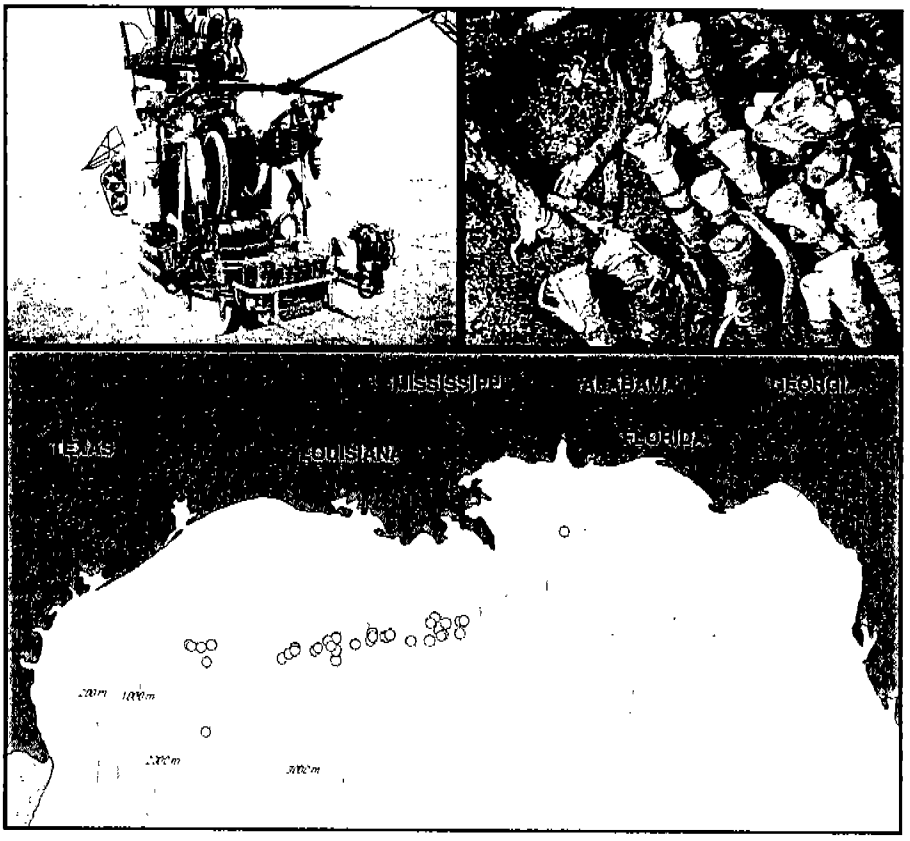
OCS Study
MMS 95-0021

Northern Gulf of Mexico

Chemosynthetic Ecosystems Study

Final Report

Volume I: Executive Summary



MMS U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region

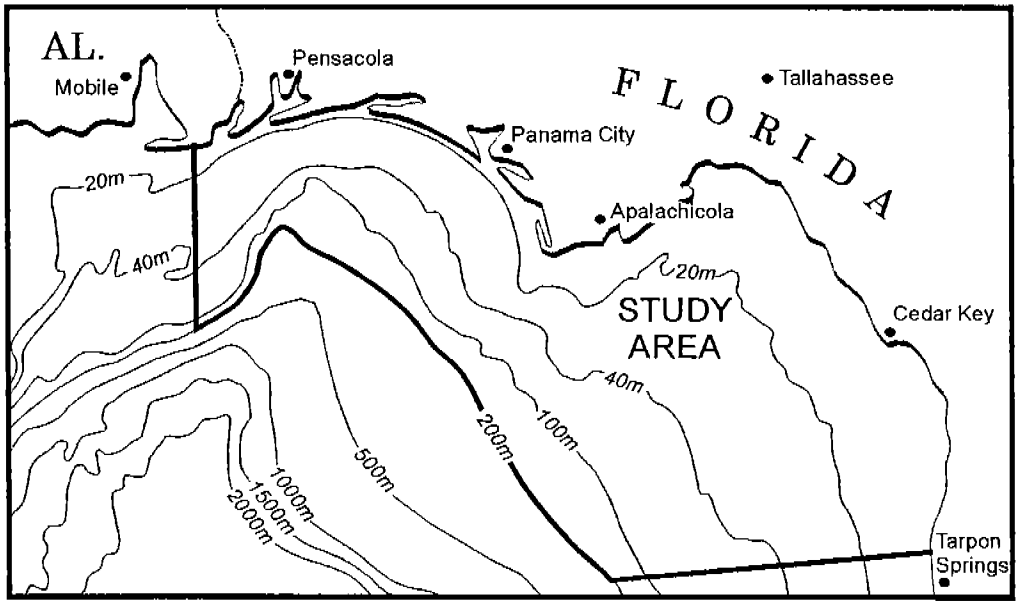
Figure 2. Organization of the front cover.

OCS Study
MMS 96-0015

NBS Study
96-0001

Northeastern Gulf of Mexico Coastal and Marine Ecosystem Program: Data Search and Synthesis, Annotated Bibliography

Appendix A: Physical Oceanography



MMS U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region

U.S. Department of the Interior
National Biological Survey
Southern Regional Office

Figure 3. Organization of the front cover for supporting agency.

The Department of the Interior Mission

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

The Minerals Management Service Mission

As a bureau of the Department of the Interior, the Minerals Management Service's (MMS) primary responsibilities are to manage the mineral resources located on the Nation's Outer Continental Shelf (OCS), collect revenue from the Federal OCS and onshore Federal and Indian lands, and distribute those revenues.

Moreover, in working to meet its responsibilities, the **Offshore Minerals Management Program** administers the OCS competitive leasing program and oversees the safe and environmentally sound exploration and production of our Nation's offshore natural gas, oil and other mineral resources. The MMS **Royalty Management Program** meets its responsibilities by ensuring the efficient, timely and accurate collection and disbursement of revenue from mineral leasing and production due to Indian tribes and allottees, States and the U.S. Treasury.

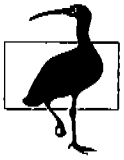
The MMS strives to fulfill its responsibilities through the general guiding principles of: (1) being responsive to the public's concerns and interests by maintaining a dialogue with all potentially affected parties and (2) carrying out its programs with an emphasis on working to enhance the quality of life for all Americans by lending MMS assistance and expertise to economic development and environmental protection.

Figure 4. Organization of the inside back cover.

The Department of the Interior Mission

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

The National Biological Service Mission



As a bureau of the Department of the Interior (DOI), the National Biological Service's (NBS) primary mission is to provide the scientific understanding and technologies needed to support sound management and conservation of our Nation's biological resources. Independence from regulatory and management decision making greatly lessens the chance that scientific results will be viewed as less than objective science or subservient to the needs of policy makers. NBS provides credible, objective, and unbiased information needed by resources managers in the Department of the Interior in a form that allows them to assess, predict, and manage the biological consequences of various policies and management practices. Although the primary focus of the biological research is to meet DOI needs, the activities undertaken with natural resource research funding will also serve the science needs of a wide range of partners, including State governments, other Federal agencies, and private landowners.

The Minerals Management Service Mission

As a bureau of the Department of the Interior, the Minerals Management Service's (MMS) primary responsibilities are to manage the mineral resources located on the Nation's Outer Continental Shelf (OCS), collect revenue from the Federal OCS and onshore Federal and Indian lands, and distribute those revenues.

Moreover, in working to meet its responsibilities, the **Offshore Minerals Management Program** administers the OCS competitive leasing program and oversees the safe and environmentally sound exploration and production of our Nation's offshore natural gas, oil and other mineral resources. The MMS **Royalty Management Program** meets its responsibilities by ensuring the efficient, timely and accurate collection and disbursement of revenue from mineral leasing and production due to Indian tribes and allottees, States and the U.S. Treasury.

The MMS strives to fulfill its responsibilities through the general guiding principles of: (1) being responsive to the public's concerns and interests by maintaining a dialogue with all potentially affected parties and (2) carrying out its programs with an emphasis on working to enhance the quality of life for all Americans by lending MMS assistance and expertise to economic development and environmental protection.

Figure 5. Organization of the inside back cover for supporting agency.

OCS Study
MMS 95-0021

Northern Gulf of Mexico

Chemosynthetic Ecosystems Study

Final Report

Volume I: Executive Summary

Editors

Ian R. MacDonald
William W. Schroeder
and
James M. Brooks

Prepared under MMS Contract
14-35-0001-30555
by
Geochemical and Environmental Research Group
Texas A&M University
Texas A&M Research Foundation
College Station, Texas

Published by

U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region

New Orleans
May 1996

Figure 6. Title page format.

OCS Study
MMS 96-0015

NBS Study
96-0001

Northeastern Gulf of Mexico Coastal and Marine Ecosystem Program: Data Search and Synthesis, Annotated Bibliography

Appendix A: Physical Oceanography

Compiler

Science Applications International Corporation

May 1996

Prepared under NBS Contract
1445-CT0009-95-002
by
Science Applications International Corporation
Raleigh, North Carolina 27605

Published by

U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region

U.S. Department of the Interior
National Biological Survey
Southern Regional Office

Figure 7. Title page format for supporting agency.

Chapter 2
Editorial Analysis

Project Personnel:
Michael Dorner, Deborah Miller, Constance Landry
and
Debbie Vigil

Minerals Management Service

2.1 Introduction

Text for the chapter can begin.

Figure 8. Sample acknowledgment of author by chapter.

DISCLAIMER

This report was prepared under contract between the Minerals Management Service (MMS), the Texas Institute of Oceanography, and the National Marine Fisheries Service. This report has be technically reviewed by the MMS, and it has been approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the MMS, nor does mention of trade names or commercial products constitute endorsement or recommendation for use. It is, however, exempt from review and compliance with the MMS editorial standards.

REPORT AVAILABILITY

Extra copies of this report may be obtained from the Public Information Office (Mail Stop 5034) at the following address:

U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region
Public Information Office (MS 5034)
1201 Elmwood Park Boulevard
New Orleans, Louisiana 70123-2394

Telephone: (504) 736-2519 or
1-800-200-GULF

CITATION

Suggested citation:

Davis, R.W. and G.S. Fargion, eds. 1995. Distribution and abundance of cetaceans in the north-central and western Gulf of Mexico: Final report. Volume I: Executive summary. OCS Study MMS 96-0026. Prepared by the Texas Institute of Oceanography and the National Marine Fisheries Service. U.S. Dept. of the Interior, Minerals Mgmt. Service, Gulf of Mexico OCS Region, New Orleans, LA. 29 pp.

ABOUT THE COVER

The cover art depicts a clymene dolphin and is the work of Mark Grace, an employee of the National Marine Fisheries Service Laboratory at Pascagoula, Mississippi.

Figure 9. Sample disclaimer/report availability/citation/cover art acknowledgment page.

DISCLAIMER

This report was prepared under contract between the National Biological Survey (NBS) and Science Applications International Corporation. This report has been technically reviewed by the NBS and the Minerals Management Service (MMS), and it has been approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the NBS or MMS, nor does mention of trade names or commercial products constitute endorsement or recommendation for use. It is, however, exempt from review and compliance with the MMS editorial standards.

REPORT AVAILABILITY

Extra copies of this report may be obtained from the Public Information Unit (Mail Stop 5034) at the following address:

U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region
Public Information Unit (MS 5034)
1201 Elmwood Park Boulevard
New Orleans, Louisiana 70123-2394

Telephone: (504) 736-2519 or
1-800-200-GULF

CITATION

Suggested citation:

Science Applications International Corporation. 1996. Northeastern Gulf of Mexico Coastal and Marine Ecosystem Program: Data Search and Synthesis, Annotated Bibliography. Appendix A: Physical Oceanography. OCS Study MMS 96-0015 and NBS Study 96-0001. U.S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA, and U.S. Dept. of the Interior, National Biological Survey, Southern Regional Office, Lafayette, LA. 181 pp.

ACKNOWLEDGMENT

Thanks are extended to Paul Blankenship whose knowledge of Papyrus was essential to integrating the many different electronic search formats.

Figure 10. Sample disclaimer/report availability/citation/acknowledgment page.

PREFACE

The following GOOMEX Interim Report summarizes progress made to date in the "Gulf of Mexico Offshore Monitoring Experiment: Phase I. Sublethal Responses to Contaminant Exposure" program. As an important and purposeful part of the study design; the methodologies, interpretations, and study approach have continued to evolve during the course of the program. It should be noted that the preliminary interpretations presented in this volume are based on partial data sets collected during Cruises 1 and 2 and are subject to revision as the data and additional sampling are completed. In many instances the trends alluded to in the data need further verification and testing and should not be construed as the final product or conclusions ultimately to be produced by the GOOMEX Phase I Program.

Figure 11. Sample preface.

ACKNOWLEDGMENTS

This report would not have been possible without the contributions of a large number of people from Texas A&M University, Louisiana State University, Evans-Hamilton, Inc., Maine maritime Academy, and the University of Southern Mississippi. We thank the principal investigators who contributed text to this volume: Ann Jochens (Program Management, Task A-8), Denis Wiesenburg (Task A-3), Doug Biggs (Task A-4), and S.A. Hsu (Task A-6).

The editors were assisted greatly by the efforts and contributions of the LATEX A staff at TAMU. Special thanks to Yongxiang Li, Matt Howard, Steve DiMarco, Woody Lee, Debz DeFreitas, Frank Kelly, and Jodi Hughes for providing text, information, and graphics. The help of student workers Marinda Smith and Paul Griffin is much appreciated.

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Maureen E. Reap
Ann E. Jochens
Worth D. Nowlin, Jr.

Figure 12. Sample acknowlegments.

ABSTRACT

Major oil and gas companies are shifting exploration and production (E&P) investment from the United States to foreign countries. As they do so, smaller companies, "independents," are expected to play a more prominent role in domestic E&P. Within both industry and government circles the apprehension is widespread that such a shift from the majors to the independents will cause domestic oil and gas resources to be developed less aggressively and less efficiently.

This project addresses such concerns by attempting to discern and quantify differences in behavior and success among firms of different sizes (majors, large and small independents) operating in the Gulf of Mexico OCS region. Descriptive analysis of data on drilling effort and outcomes on the Gulf of Mexico indicates independents have been both more aggressive and successful than the majors in exploration while the majors have been only moderately more successful than independents in development drilling. Overall, independents appear to have been at least as successful as the majors.

To investigate these differences more carefully, we developed a hydrocarbon model describing the process of adding to reserves through incremental drilling. The model was estimated using data from the Gulf of Mexico OCS region. The model is a combination of an econometric specification of the firm's drilling behavior with the firm's drilling productivity function. The model is used to analyze the effects of taxation, depletion and economic incentives on drilling and drilling productivity. Empirical estimates of the hydrocarbon model of reserve additions confirm the inferences drawn from descriptive analysis. Our measurements indicate that independents respond to market and industry conditions in the same way as do the majors. Thus, we do not believe OCS petroleum resources would be developed less aggressively or less efficiently if the independents were to do relatively more of the search for and development of hydrocarbons in the region.

Figure 13. Sample abstract.

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Figure 14. Sample table of contents.

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Figure 15. Sample list of figures.

LIST OF TABLES

Figure 16. Sample list of tables.

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13. ABSTRACT *(Maximum 200 words)*

This report was prepared under contract the Minerals Management Service and the Louisiana Universities Marine Consortium, and it discusses the history and consequent development of the oil and gas industry on the Outer Continental Shelf in the Gulf of Mexico. The report traces the events and technological development that preceded and allowed that development, as well as the national and international events that shaped and limited offshore development in the Gulf of Mexico. The impacts of that development in general and of the Federal Outer Continental Shelf leasing program, initiated in 1954, in particular are also discussed.

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Figure 17. Sample report documentation page.

Table III-2

Summary of the Most Damaging Hurricanes in the Gulf of Mexico

Hurricane	Year	Category[1]	Damage[2] (million $)	Deaths
Tex.	1900	4	NA	6,000+
Miss./Ala./Pensacola, Fla.	1906	3	NA	134
Southeast Fla.	1906	2	NA	164
La.	1909	4	NA	350
Tex.	1909	3	NA	41
La.	1915	4	NA	275
North Tex.	1915	4	1,177	275
Southwest La.	1918	3	NA	34
Fla. Keys	1919	4	NA	600-900
Fla.	1926	4	1,315	243
La.	1926	3	NA	25
Tex.	1932	4	NA	40
South Tex.	1933	3	NA	40
Southwest Fla.	1944	3	582	NA
Southeast Fla./La./Miss.	1947	4	707	51
Audrey (La./Tex.)	1957	4	696	390
Carla (Tex.)	1961	4	1,926	46
Hilda (La.)	1964	3	578	38
Betsy (Fla./La.)	1965	3	6,461	75
Beulah (Tex.)	1967	3	844	NA
Camille (Miss./Ala.)	1969	5	5,242	256
Celia (Tex.)	1970	3	1,560	NA
Eloise (Fla.)	1975	3	1,081	NA
Claudette (Tex.)	1979	T.S.	609	NA
Frederic (Ala./Miss.)	1979	3	3,502	NA
Allen (Tex.)	1980	3	410	NA
Alicia (Tex.)	1983	3	2,391	NA
Elena (Miss./Ala./Fla.)	1985	3	1,392	NA
Juan (La.)	1985	1	1,671	NA
Allison (Tex.)	1989	T.S.	511	NA
Andrew	1992	4	NA	NA

[1] Storm Category represents the Saffir/Simpson Scale
Category 1 = winds of 74-95 mph
Category 2 = winds of 96-110 mph
Category 3 = winds of 111-130 mph
Category 4 = winds of 131-155 mph
Category 5 = winds greater than 155 mph

[2] Damage in adjusted 1990 U.S. dollars.

T.S. = tropical storm.
NA= Data not available.

Source: Modified from Herbert et al., 1992.

Figure 18. Example of a table using portrait orientation.

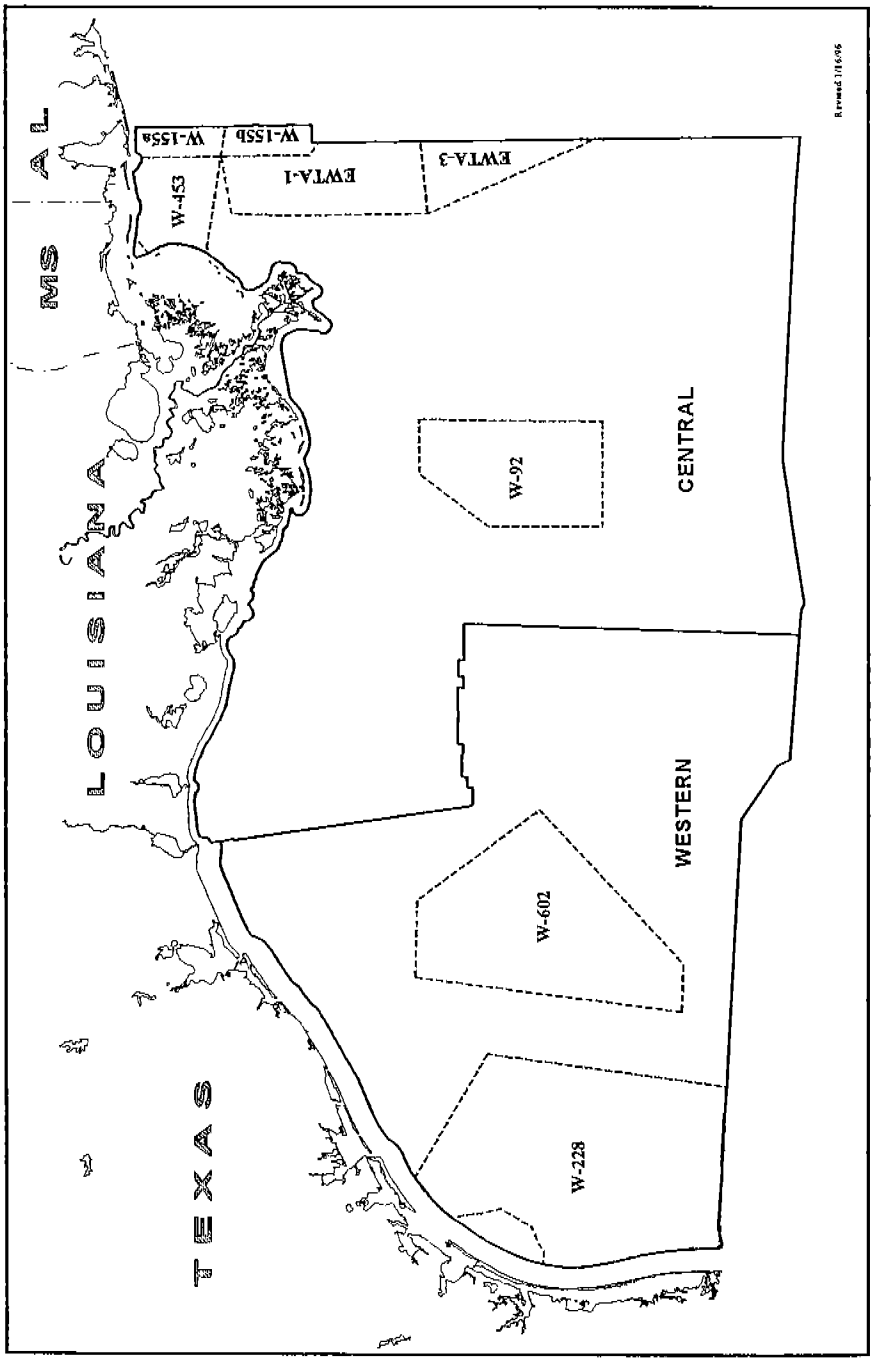

Figure II-2. Military Warning Areas within the Central and Western Gulf of Mexico Planning Areas.

Figure 19. Example of a figure using landscape orientation.

Table 1. Summary of a Single-volume Report

	Chapter One	Other Chapters	Appendices
Name:	Executive Summary	Titles as appropriate	Appendix A, etc.
Objective:	Summarize findings, results, & significance	Detailed discussions	Data documentation
Targeted Audience:	Well informed laypersons	Scientific community	Scientific community

Table 2. Summary of a Multi-volume Report

	Volume I	Volume II	Volume III (Optional)
Name:	Executive Summary	Narrative Report; Technical Report	Appendices
Objective:	Summarize findings, results, & significance	Detailed discussions	Reduce bulk of Volume I and Volume II
Targeted Audience:	Knowledgeable laypersons	Scientific audience	Scientific audience

Table 3. International System of Units--Base Units

Quantity	Unit	
	Name	*Symbol*
length	meter	m
mass	kilogram	kg
time	second	s
electric current	ampere	A
thermodynamic temperature	kelvin	K
amount of substance	mole	mol
luminous intensity	candela	cd

Table 4. International System of Units--Derived Units

Quantity	Unit		
	Special Name	*Symbol*	*Equivalent*
plane angle	radian	rad	
solid angle	steradian	sr	
speed, velocity			m/s
acceleration			m/s^2
angular velocity			rad/s
angular acceleration			rad/s^2
frequency	hertz	Hz	
force	newton	N	
pressure, stress	pascal	Pa	
work, energy, heat	joule	J	
impulse, momentum			N·s, kg·m/s
power	watt	W	
electric charge	coulomb	C	
electric potential, emf	volt	V	
resistance	ohm	Ω	
conductance	siemens	S	
magnetic flux	weber	Wb	
inductance	henry	H	
capacitance	farad	F	
electric field strength			V/m, N/C
magnetic flux density	tesla	T	
electric displacement			C/m^2
magnetic field strength			A/m
Celsius temperature	degree Celsius	°C	
luminous flux	lumen	lm	
illuminance	lux	lx	
radioactivity	becquerel	Bq	

Table 5. International System of Units--Units in Use

Quantity	Unit	
	Name	*Symbol*
time	minute	min
	hour	h
	day	d
plane angle	degree	°
	minute	'
	second	"
volume	liter	L
mass	metric ton	t
land area	hectare	ha

The Department of the Interior Mission

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

The Minerals Management Service Mission

As a bureau of the Department of the Interior, the Minerals Management Service's (MMS) primary responsibilities are to manage the mineral resources located on the Nation's Outer Continental Shelf (OCS), collect revenue from the Federal OCS and onshore Federal and Indian lands, and distribute those revenues.

Moreover, in working to meet its responsibilities, the **Offshore Minerals Management Program** administers the OCS competitive leasing program and oversees the safe and environmentally sound exploration and production of our Nation's offshore natural gas, oil and other mineral resources. The MMS **Royalty Management Program** meets its responsibilities by ensuring the efficient, timely and accurate collection and disbursement of revenue from mineral leasing and production due to Indian tribes and allottees, States and the U.S. Treasury.

The MMS strives to fulfill its responsibilities through the general guiding principles of: (1) being responsive to the public's concerns and interests by maintaining a dialogue with all potentially affected parties and (2) carrying out its programs with an emphasis on working to enhance the quality of life for all Americans by lending MMS assistance and expertise to economic development and environmental protection.